

DOCUMENT-IDENTIFIER: US 20030143479 A1

TITLE: Positive photoresist composition and method of
patterning resist thin film for use in inclined
implantation process

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Summary of Invention Paragraph - BSTX (126):

[0122] Practically, the positive photoresist compositions of the present invention may preferably be used, for example, in the following manner. Each of the ingredients (A), (B) and (C) and other ingredients added according to necessity is dissolved in an appropriate solvent as mentioned above to yield a coating solution; the coating solution is then applied, using a spinner or the like, onto a substrate such as a silicon wafer, and is then dried to form a **resist** film (photosensitive layer) about 0.1 to 0.5 μm thick; next, the **resist** film is selectively exposed to light through a desired mask pattern using a light source emitting light with a **wavelength of approximately 365 nm, such as a low-pressure mercury lamp,** high-pressure mercury lamp, and ultrahigh-pressure mercury lamp; the exposed **resist** film is subjected to post-exposure baking (PEB) at about 100.degree. C. to about 120.degree. C.; and the exposed portions of the film are then dissolved and removed by dipping the substrate in a developer solution, for example, an alkaline aqueous solution such as a 1% to 10% by weight tetramethylammonium hydroxide (TMAH) aqueous solution, thus forming an image being in exact accordance with the mask pattern. The resist film is then subjected to post-baking at about 90.degree. C. to about 110.degree. C. and thereby yields a patterned resist thin film for use in an inclined implantation process.